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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,166	09/27/2001	David W. Payton	HRL068	3437
28848	7590	09/06/2005	EXAMINER	
TOPE-MCKAY & ASSOCIATES 23852 PACIFIC COAST HIGHWAY #311 MALIBU, CA 90265			HARPER, KEVIN C	
			ART UNIT	PAPER NUMBER
			2666	
DATE MAILED: 09/06/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/966,166

Applicant(s)

PAYTON, DAVID W.

Examiner

Kevin C. Harper

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-96 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-10, 14, 15, 29-32, 35-38, 43, 44, 58-61, 64, 65, 68, 69, 71, 79-82, 85 and 86 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 11-13, 16-28, 33, 34, 39-42, 45-57, 62, 63, 66, 67, 70, 72-78, 83, 84 and 87-96 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/02, 12/02</u> | 6) <input type="checkbox"/> Other:  |

### ***Claim Objections***

1. Claims 1- 96 are objected to because in claim 1, line 16, claim 20, line 3, claim 26, line 5, claim 30, lines 17 and 19, claim 35, line 3, claim 41, line 5, claim 49, line 3, claim 54, line 5, claim 59, lines 17 and 19, and claim 80, lines 21 and 23, “a message may be” should be --the message is-- for clarity. Claims 6, 10, 11, 13, 25, 36, 39, 41, 49-50, 54, 66-67, 76 and 96 are objected to because the words “may” or “optional” should be removed to recite a definite limitation for clarity. Claims 5 and 17 are objected to because in claim 5, line 6, claim 17, line 6, “whereby a messages” should be --whereby messages--. Claim 37 is objected to because “message to be only” should be --message to be transmitted only--. Appropriate correction is required.

### ***Drawings***

Fig. 4 is objected to because “-(X+1)” should be --(X+1)-- as noted in claim 16 and in the specification on pages 6 and 15. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be

notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 6, 8-10, 14-15, 30-31, 37-38, 43-44, 59-60, 64-65, 68-69 are rejected under 35 U.S.C. 102(b) as being anticipated by Horie et al. (US 5,157,692).

2. Regarding claims 1-2, 6, 14-15, 30-31, 43-44, 59-60 and 68-69, Horie discloses a system or a system node having means for performing a method for messaging within several nodes (fig. 3A and 3B) where each node includes a processor, a memory, and a directional communication interface (fig. 3B, item 5; fig. 10, items 9-11; fig. 3A, item 4). The method comprises receiving a message including an address code (fig. 4, xs, xrcid, ys, yrcid) and corresponding data (fig. 4; bits. 0-15; col. 2, lines 33-41; col. 4, line 63 through col. 5, line 4), where the address code includes a relative target address of the node to which the message is to be sent (fig. 4, xrcid, yrcid), processing the received address code to determine if the code indicates that the current node is the intended recipient of the message (col. 6, lines 21-29), modifying the address code based on the direction from which the message was received, the address code in the message and the direction to which the message is to be retransmitted (col. 6, lines 21-29), retransmitting the message including the modified address code in the direction it is to be transmitted (col. 6, lines 13-17), and repeating the method steps until the message reached the intended node through expiration (col. 6, lines 26-29).

3. Regarding claims 8-9, 37-38 and 64-65, the message is retransmitted in a subset of directions toward the destination depending on the address code and the direction the message was received (col. 6, lines 9-17).
4. Regarding claim 10, the recited optional step need not be performed by the method of Horie (MPEP 2106(C), fourth paragraph).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 32, 61, 71, 80-82 and 85-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horie et al (US 5,157,692) in view of Spinney (US 5, 390,173).

5. Regarding claims 80-81, Horie discloses a system or a system node having means for performing a method for messaging within several nodes (fig. 3A and 3B) where each node includes a processor, a memory, and a directional communication interface (fig. 3B, item 5; fig. 10, items 9-11; fig. 3A, item 4). The method comprises receiving a message including an address code (fig. 4, xs, xrcid, ys, yrcid) and corresponding data (fig. 4; bits. 0-15; col. 2, lines 33-41; col. 4, line 63 through col. 5, line 4), where the address code includes a relative target address of the not to which the message is to be sent (fig. 4, xrcid, yrcid), processing the received address code to determine if the code indicates that the current node is the intended recipient of the message (col. 6, lines 21-29), modifying the address code based on the direction from which the message was

received, the address code in the message and the direction to which the message is to be retransmitted (col. 6, lines 21-29), retransmitting the message including the modified address code in the direction it is to be transmitted (col. 6, lines 13-17), and repeating the method steps until the message reached the intended node through expiration (col. 6, lines 26-29).

6. However, Horie does not disclose that the method is a computer program product recorded on a recording medium. Spinney discloses a routing algorithm embodied on a readable medium (figs. 1A and 2; col. 4, lines 32-35; note: software). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a routing algorithm embodied as a computer program on a recordable medium in the invention of Horie in order to provide a flexibly implemented/modified control structure for the method.

7. Regarding claims 85-86, in Horie the message is retransmitted in a subset of directions toward the destination depending on the address code and the direction the message was received (col. 6, lines 9-17).

8. Regarding claims 3, 32, 61, 71 and 82, Horie discloses a message transmission system (fig. 3A). However, Horie does not disclose that the packets contain a time stamp and halting the packet transmission when an amount of time expires. Spinney discloses a time stamp for a packet (fig. 5, item 82; col. 10, lines 51-55; col. 11, lines 9-14) where a packet is discarded if the time stamp expires (col. 5, lines 38-40). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to discard a packet when a time stamp expires in the invention of Horie in order to remove packets from the network that have experienced excess delay (Spinney, col. 11, lines 11-12).

Claims 6-7 and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horie et al (US 5,157,692) in view of Iwamura et al. (US 2002/114286).

Regarding claims 6-7 and 35-36, Horie discloses a message transmission system (fig. 3A). However, Horie does not disclose a message destined for several recipients. Iwamura discloses a network having multicasting (figs. 1 and 31; para. 37; para. 275, lines 16-25; para. 305). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have several recipients of a message in the invention of Horie in order to efficiently route data to several intended users (Iwamura para. 2, last five lines).

Claims 29, 58 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horie et al (US 5,157,692) in view of Thorson (US 5,533,198).

9. Regarding claims 29, 58 and 79, Horie discloses a message transmission system (fig. 3A). However, Horie does not disclose three-dimensional routing. Thorson discloses three-dimensional routing (figs. 3, 5 and 7). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have three-dimensional routing in the invention of Horie in order to provide an efficient network topology for routing (Thorson, col. 1, lines 33-49).

#### ***Allowable Subject Matter***

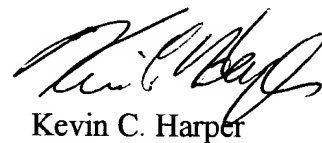
10. Claims 4-5, 11-13, 16-28, 33-34, 39-42, 45-57, 62-63, 66-67, 70, 72-78, 83-84 and 87-96 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and rewritten to overcome any claim objections noted above.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 571-272-3174. The centralized fax number for the Patent Office is 571-273-8300. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is kevin.harper@uspto.gov.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see portal.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin C. Harper

September 5, 2005